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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHEYSTER, I. M.

Economic efficiency of technological progress in Soviet power engineering. Vop. ekon. no.11:153-156 N '60. (MIRA 13:11)
(Electrification)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

POPKOV, V.I.; ZAKHARIN, A.G.; MARKOVICH, I.M.; TOLSTOV, Yu.G.; GUREVICH, B.A.; KRACHKOVSKIY, N.N.; LEBEDEV, M.M.; MIKHAYLOV, V.I.; DENISOV, V.I.; MOSKVITIN, A.I.; MEYEROVICH, E.A.; TELESHEV, B.A.; STEKOL'NIKOV, I.S.; LAPITSKIY, V.I.; KHEYSTER, I.M.

Veniamin Isaakovich Veits; obituary. Elektrichestvo no.4: 91-92 Ap '61. (MIRA 14:5)
(Veits, Veniamin Isaakovich, 1905-1961)

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L 2968-66 EWT(d)/EWP(k)/EWP(1) UR/0105/64/000/009/0091/0091

ACCESSION NR: AP5026355

AUTHOR: Bel'kind, L. D.; Venikov, V. A.; Glazunov, A. A.; Grudinskiy, P. G.; Zhadin, K. P.; Zhebrovskiy, S. P.; Lapitskiy, V. I.; Neklyudov, B. K.; Pavlenko, V.A. Razevig, D. V.; Rossiyevskiy, G. I.; Safonov, A. P.; Sokolov, N. I.; Soldatkina, L.A. Tayts, A. A.; Ul'yanov, S. A.; Fedoseyev, A. M.; Khoyster, V. A.

TITLE: Professor B. A. Teleshev on this 70th birthday and the 45th anniversary of his engineering, scientific, and teaching activity

SOURCE: Elektrichestvo, no. 9, 1964, 91

TOPIC TAGS: electric engineering personnel

ABSTRACT: Boris Arkad'yevich Teleshev was seventy years old 12 March 1964. He graduated from the electromechanical department of the Petrograd Polytechnic Institute in 1917 and gained the title Electrical Engineer in 1920. In the Union of Electric Power Stations of the Moskovskiy rayon, Teleshev was one of the founders of the first dispatcher service of the Moscow Power System, the chief dispatcher of this system, the manager of the high-voltage networks of the Moscow Union, the chief engineer in construction of the Moscow high-voltage network and of the high-voltage networks of the

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Moskovskiy rayon and the chief engineer in construction of the Bobrikovsk (now Novomoskovsk) hydroelectric station. In connection with the reorganization of construction in 1931, Teleshev was transferred to Energostroy, first as chief engineer of the Moscow division and then as deputy chief of the design administration of Energostroy (now Teploelektroproyekt). In 1934, Teleshev took the post of assistant director of the Scientific Section of the Power Engineering Institute imeni Krzhizhanovskiy of the Academy of Sciences USSR and worked as the immediate assistant to Academician G. M. Krzhizhanovskiy in directing the Institute until 1946. Starting in 1923, he did scientific research work first at the Moscow Institute of Mechanics im. Lomonosov and then at the Institute of National Economy im. Plekhanov. After the founding of the Moscow Power Engineering Institute in 1930, Teleshev transferred to that Institute and worked there until 1940. Here he was Lecturer of the Department of "Central Electric Stations" and a professor in the department. He received his professorship in 1933. He was Dean of the Electric Power Department of the Institute from 1932-1935. In 1940, Teleshev was made director of the Department of Electrical Engineering of the Moscow Institute of Fine Chemical Technology where he remained until 1955. In 1944 he took part in organizing the Power Engineer-

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2

ing Department of the Moscow Institute of Engineering Economics im. S. Ordzhonikidze. From 1946 to the present, Teleshev has been director of the Department of "Electric Stations and Substations" and there have been two printings of his textbook on a course in "General Electrical Engineering." Teleshev has acted in a consultative capacity in plans for a great number of electrical stations and networks. He participated in the Government Consultation on the Dneper hydroelectric station im. V. I. Lenin. He has been an active member of the Scientific and Technical Society of the Power Industry for more than 20 years. He was chairman of the Moscow board of the Society from 1944 to 1951. For his service to the Society, he has been made a permanent member. In 1950 he was elected deputy in the Moscow Council of Deputies of the Workers. He has been decorated with the Order of Lenin, the Order of the Red Banner of Labor and with medals. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: ES

NR REF SOV: 000 OTHER: 000 JPRS

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

BEL'KIND, L.D.; VENIKOV, V.A.; GLAZUNOV, A.A.; GRUDINSKIY, P.G.; ZHADIN, K.P.; ZHEBROVSKIY, S.P.; LAPITSKIY, V.I.; NEKLYUDOV, B.K.; PAVLENKO, V.A.; RAZEVIG, D.V.; ROSSIYEVSKIY, G.I.; SAFONOV, A.P.; SOKOLOV, N.I.; SOLDATKINA, L.A.; TAYTS, A.A.; UL'YANOV, S.A.; FEDOSEYEV, A.M.; KHEYSTER, V.V.

Boris Arkad'evich Teleshev; on his 70th birthday and the 45th anniversary of his engineering and educational work. Elektrichestvo no.9:91 S '64. (MIRA 17:10)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHEYSTVER, B.D., inzhener.

Moisture content and soil density of roadbeds in use. Trudy TSNII MPS no. 89:4-25 '54. (MIRA 8:2)
(Railroad engineering)(Soil stabilization)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHEYSTVER,B.D., inzhener

Allowable stresses on earthen roadbeds. Trudy TSNII MPS no.97: 386-410 '55. (MLRA 8:12)

(Railroads--Track)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHEYSTVER, B. D., Cand Tech Sci -- (diss) "Study of the Conditions of Formation of Deformations of the Basic Floor of the Earth Bed." Mos, 1957. 13 pp (Min of ~~Communications~~ Railways USSR, All-Union Sci Res Inst of Railroad Transportation), 100 copies (KL, 47-57, 88)

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHEYSTVER, B.D.

SOV/124-58-5-5862

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 5, p 132 (USSR)

AUTHOR: Kheystver, ~~B.D.~~

TITLE: Influence of a Repeatedly-applied Load on the Deformation of an Earth Embankment (Vliyaniye povtorno prilagayemoy nagruzki na obrazovaniye deformatsiy zemlyanogo polotna)

PERIODICAL: Vestn. Vses. n.-i. in-ta zh.-d. transp., 1957, Nr 7, pp 44-46

ABSTRACT: Bibliographic entry

1. Soils--Mechanical properties
2. Soils--Stability

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHEYSTVER, B.D., kand.tekhn.nauk; AVERCCHKINA, M.V., kand.geol.-mineral.nauk

Formation of the secondary structure of subgrade soil. Vest. TSNII MPS 19 no.8:49-52 '60. (MIRA 13:12)
(Soil mechanics) (Railroads--Track)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

BAGDASAR'YAN, G.S., inzhener; KHEYSTVER, N.L., inzhener.

Using light borehole filter pumps in open pit mining. Mekh.trud.rab. 10 no.10:25-26 O '56. (MIRA 10:1)

(Strip mining) (Mine pumps)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

BUNIMOVICH, Lev Danilovich; KUDUKIS, Valeriya Iosifovna; ERENBURG, Grigoriy Borisovich. Prinimali uchastiye: PEREPLETCHIKOV, B.I., inzh.; KHEYSTVER, Ye.M., inzh.; MOROZOV, N.A., red.; LEBEDEVA, I.D., red.izd-va; GRECHISHCHEVA, V.I., tekhn. red.

[Technology of assembly-line production of elements made by joiners and carpenters] Tekhnologiia massovogo proizvodstva stoliarno-stroitel'nykh izdelii. Moskva, Goslesbumizdat, 1963. 257 p. (MIRA 16:8)

1. Gosudarstvennyy institut proyektirovaniya predpriyatiy derevoobrabatyvayushchey promyshlennosti (for Perepletchikov, Kheystver).

(Building--Details)

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KHEYYER, Sharlotta

Connection between the study of chemistry and productive work at a socialist plant. Khim. v shkole 18 no.4:78-82 Jl-Ag '63. (MIRA 17:1)

1. Pedagogicheskiy institut, Potsdam, Germanskaya Demokraticheskaya Respublika.

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L 27414-66 EWT(1)/EWP(m)/EWA(d)/EWA(1) RM

ACC NR: AP6012551 SOURCE CODE: UR/0040/66/030/002/0347/0352

AUTHORS: Antonov, A. M. (Kiev); Kheyz, U. D. (Princeton)

ORG: none

70
B

TITLE: Blunt body flow solution in hypersonic gas flow

SOURCE: Prikladnaya matematika i mekhanika, v. 30, no. 2, 1966, 347-352

TOPIC TAGS: gas flow, hypersonic flow, shock wave, approximation method, blunt body

ABSTRACT: An approximation method is outlined for calculating the flow over very blunt bodies. It consists of an iteration method applicable to two-dimensional as well as axially symmetric bodies. The flow velocity u and v normal and parallel to the surface respectively, the pressure p, and the density ρ are expanded in powers of ε

$$\varepsilon = \frac{\gamma - 1}{\gamma + 1} + \frac{2}{(\gamma + 1) M_\infty^2}$$

or,

$$\frac{u^\circ}{U_\infty} = \varepsilon u(x, r) + O(\varepsilon^2), \qquad \frac{v^\circ}{U_\infty} = \varepsilon^{1/2} v(x, r) + O(\varepsilon^{3/2})$$

$$\frac{p^\circ - p_\infty}{\rho_\infty U_\infty^2} = 1 + \varepsilon p(x, r) + O(\varepsilon^2), \quad \left(\frac{\rho_\infty}{\rho^\circ}\right)^{-1} = \frac{1}{\varepsilon} + \sigma(x, r) + O(\varepsilon).$$

The inner and outer solutions are given separately for both the two-dimensional and the axially symmetric cases. For example, the outer solution for the pressure in the

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two-dimensional case yields

$$p^*(v, y) = G(y) - \left(\frac{A}{y^3} - \frac{A+B}{A^2}\right)\left(\frac{Av^2}{2} + \frac{3}{4}Bv^4\right) + \ldots$$

and for the axially symmetric case,

$$p^*(v, r) = G(r) + \frac{A}{3}\left(1 + \frac{2}{3}\frac{B}{A}\right)\frac{v^3}{r} - \frac{16}{9}A^2B\frac{v^4}{r^4} - \frac{A^4v^4}{2r^4} + \ldots$$

The above method is then applied to the case of a plane circular disk in hypersonic flow. Orig. art. has: 54 equations and 1 diagram.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

MAR'YANCHIK, V.L.; KHEYZE, N.V.

Reorganization of the sugar industry. Sakh.prom. 30 no.4:8-11 Ap '54. (MLRA 9:8)

1. Ministerstvo promyshlennosti prodovol'stvennykh tovarov (for Mar'yanchik); 2. Ukrglavsakhar (for Kheyze).
(Sugar industry)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHEYZE, N.V.

PARSHIKOV,M.Ya.; MAKHINYA,M.M.; SILIN,P.M.; YAPASKURT,V.V.; YEPISHIN,A.S; SHAKIN,A.N.; ZHIDKOV,A.A.; KHELEMSKIY,M.Z.; KARTASHOV,A.K.; BEHIN,G.S. LEPESHKIN,I.P.; KRASNYUK,G.M.;ZHVIRKO,I.S.; ZELIKMAN,I.F.; KHEYZE,N.V.

Birthday of P.V.Golovin. Sakh.prom.29 no.5:7 '55. (MLRA 8:11)
(Golovin, Pavel Vasil'evich, 1880-)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHEYZE, N.V.

MAR'YANCHIK, V.L.; KHEYZE, N.V.

Sugar industry of Ukraine in the sixth five-year plan. Sakh. prom. 31 no.1:7-12 Ja '57. (MIRA 10:4)

1. Ministerstvo promyshlennosti prodovol'stvennykh tovarov USSR (for Mar'yanchik). 2. Ukrglavsakhar (for Khayze).
(Ukraine--Sugar industry)

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MAR'YANCHIK, V.L.; KHEYZE, N.V.

Sugar industry of the Ukrainian S.S.R. on the threshold of 1962. Sakh.prom. 35[i.e. 36] no.2:6-9 F '62. (MIRA 15:4)

1. Gosplan USSR (for Mar'yanchik). 2. Ukrainskiy Sovet narodnogo khozyaystva (for Kheyze).
(Ukraine--Sugar industry)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

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ZOTOV, V.P.; MAKHINYA, M.M.; PARSHIKOV, M.Ya.; GAVRILOV, A.N.; SILIN, P.M.; GOLOVIN, P.V.; KHEYZE, N.V.; BUZANOV, I.F.; KHELEMSKIY, M.Z.; YAPASKURT, V.V.; SHARKO, A.P.; SANOV, N.M.; LITVAK, I.M.; IVANOV, S.Z.; LEPESHKIN, I.P.; KLEYMAN, B.M.; YEPISHIN, A.S.; GOLUB, S.I.; GERASIMOV, S.I.; GEUBE, V.R.; PASHKOVSKIY, F.M.; LITVINOV, Ye.V.; BENIN, G.S.; IVANOV, P.Ya.; VINOGRADOV, N.V.; PONOMARENKO, A.P.: ZHIDKOV, A.A.; KOVAL', Ye.T.; KARTASHOV, A.K.; NOVIKOV, V.A.

Sixtieth birthday of A.N.Shakin, Director of the Central Scientific Research Institute of the Sugar Industry. Sakh. prom. 35 no.7:33 Jl '61. (MIRA 14:7)
(Shakin, Anatolii Nikitovich, 1901-)
(Sugar industry)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHEYZEN, Bryus K.

Rift valley on the ocean bottom. Okeanologiia 3 no.1:60-70 '63.
(MIRA 17:2)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIBAROV, Mikhail Ivanovich; OPPENGEYM, D.G., red.; SENCHILO, K.K., tekhn.red.

[Kislovodsk, an all-Union health resort] Kislovodstk - vsesoiuznaia zdravnitsa. Izd.2. Moskva, Gos.izd-vo med.lit-ry, 1960. 42 p. (MIRA 13:5)

(KISLOVODSK--DESCRIPTION)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIBAROV, M. I. (Kislovodsk)

Lambliasis. Fel'd. i akush. 27 no.6:35-43 Je '62. (MIRA 15:7)

(GIARDIASIS)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIBAROV, M.I.; POPUT'KO, A., red.; KOHYL'NICHENKO, A., tekhn. red.

Kislovodsk. Stavropol', Stavropol'skoe knizhnoe izd-vo, 1963. 68 p. (MIRA 17:3)

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KHIBAROV, Mikhail Ivanovich; LAGUTINA, Ye.V., red.; BALDINA, N.F., tekhn. red.

[Lambliasis] Liamblioz. Moskva, Medgiz, 1963. 14 p. (MIRA 16:5)

(GIARDIASIS)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIBAROV, Yu.M., assistent

Disorders in the diencephalic functions in some mental diseases. Uch. zap. Stavr. gos. med. inst. 12:416-417 '63. (MIRA 17:9)

1. Kafedra psikhiatrii (zav. dotsent A.Ya. Dorsht) Stavropol'skogo gosudarstvennogo meditsinskogo instituta.

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PESKOVA, M.V.; KHIBAROV, Yu.M.

Bioelectric activity of the brain in periodic psychoses. Zhur. nevr. i psikh. 63 no.12:1842-1847 '63. (MIRA 18:1)

1. Kafedra psikhiatrii (zav. - prof. P.F.Malkin) Kuybyshevskogo meditsinskogo instituta.

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TYUTYULKOV, N.; VODENICHAROV, R.; KHIBAUM, G.

Electron structure of trans-butadiene. Zhur. strukt. khim. 5 no.6: 930-933 N-D '64. (MIRA 18:4)

1. Bolgarskaya Akademiya nauk, Institut organicheskoy khimii.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIBAUM, Karl S., prof. inzh.; STOIANOV, Andrei, inzh.

Theoretical classification of internal-combustion engines. Tekhnika Bulg 11 no.9:325-328 '62.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIBNIK, I.N.

Replacing transmission drives in "Gigant" drums by two-step worm reduction gears. Obm.tekh.opyt. [MLP] no.26:34-36 '56. (MIRA 11:11)

(Gearing, Worm)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIBNIK, I.N.; AMBURG, S.L.

Machine for cutting out straps and marking pipings. Obm.tekh. opyt. [MLP] no.27:49-53 '56. (MIRA 11:11)
(Saddlery)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIBNIK, I.N.

KHIBNIK, I.N., inzhener.

Improving the automatic line for wool processing. Leg. prom. 17 no.5:48-49 My '57. (MLRA 10:6)
(Assembly line methods) (Woolen and worsted manufacture)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIBNIK, I.N., inzh.

Continuous centrifuge for automatic production lines in primary wool processing. Izv.vys.ucheb.zav.; tekh.leg.prom. no.5:140-145 '59. (MIRA 13:4)

1. Mogilevskiy gosudarstvennyy kozhevennyy zavod im. Stalina.
(Automatic control) (Wool)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIBNIK, I.N.

Automatic production line for the processing of animal fibers. (MIRA 14:9)
Kozh.-obuv.prom. 3 no.7:15-17 Jl '61.
(Leather industry--By-products) (Assembly-line methods)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIBNIK, I.N.

Continuous action centrifuge for the textile industry.
Tekst. prom. 24 no.11:56-57 N '64. (MIRA 17:12)

1. Glavnyy spetsialist Minskogo spetsial'nogo konstruktorskogo byuro tekstil'noy i legkoy promyshlennosti.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHICHIY, O.F

KHICHIY, O.F.

Authorship of the first arithmetic textbook for public schools in Russia. Ist.-mat. issl. no.10:617-638 '57. (MIRA 11:1)
(Arithmetic--Before 1846)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHICHIY, O.F.; SHVETSOV, K.I.

Mathematics in Basilian schools of the Ukraine in the second half of the 18th century. Dokl. i soob. UzhGU. Ser. fiz.-mat. i ist. nauk no.5:126-135 '62. (MIRA 17:9)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIDASHELI, A. N.

Khidasheli, A. N. - "Means of reducing fuel consumption in handstoker boiler plants," A commemorative collection of transactions dedicated to the 25th anniversary of the Institute, (Gruz. politekhn. in-t im. Kirova, No 17), Tbilisi, 1948, p. 191-201, (Resume in Georgian)

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIDASHELI, A. N.

PA 49/49T42

USSR/Engineering May 49
Fuel Conservation
Publications

"New Literature on the Conservation of Fuel" 1½ pp

"Za Ekonomiyu Topliva" No 5

Reviews seven books and pamphlets, and six magazine articles. Among the booklets is "Instructions for Using Akhaltsikhskiy Coal in Industrial Fireboxes and Furnaces," by A. N. Khidasheli.

[redacted] 49/49T42

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

15-57-10-14386

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10, p 166 (USSR)

AUTHOR: Khidasheli, A.N.

TITLE: The Peats of Georgia as Raw Material for Producing Synthetic Fuels (Torfy Gruzii kak syr'ye dlya proizvodstva iskysstvennykh topliv)

PERIODICAL: Tr. Gruz. Politekhn. in-ta, 1956, Nr 7 (48), pp 107-118, (Summary in Georgian)

ABSTRACT: The author describes the characteristics of the peats from the Kobuleti and Imnatskoye deposits in Georgia-- the botanical and chemical composition, the calorific value, and the volatile content. Study of the products of semicoked peat points to the necessity of building factories in Georgia for the complex treatment of peat to produce peat soil-conditioner, briquettes, fuel gas, liquid synthetic fuel, and tar.

D.A. Tsikarev

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIDASHELI, A.N.; SULAKADZE, T.S.

Heating citrus plants with activated peat briquets in Tiflis.
Soob. AN Gruz. SSR 19 no.3:329-336 S '57. (MIRA 11:5)

1. Akademiya nauk Gruzinskoy SSR, Institut botaniki, Tbilisi.
Predstavleno akademikom L.I. Dzhaparidze.
(Tiflis--Citrus plants) (Frost protection) (Peat)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIDASHELI, A.N.; NADARAYA, G.B.; LOMIYA, Ya.N.

Experimental heating of lemon trees with briquets burning without flame and smoke under gauze coverings. Biul.VNIICHiSK no.2:94-106 '57. (MIRA 15:5)

(Georgia--Lemon) (Frost protection)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIDASHELI, Aleksandr Nikolayevich

[Collection of problems on technical thermodynamics] [Sbornik zadach po tekhnicheskoi termodinamike. Tbilisi, Gos.izd-vo "TSodna."] Pt.2. [Thermodynamics of vapors] [Termodinamika parov] 1963. 217 p. [In Georgian] (MIRA 17:4)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

CA

11B

Changes in plastic substances in grapevine runners. K. M. Iluridze-Molchan and Kh. D. Khidasheli. *Bull. Acad. Sci. Georgian S.S.S.R.* 4, 1003-10(1943)(in Georgian and Russian).—Microchem. examn. of microscopic sections showed that in samples kept for 2 months at −5°, fats, and to some extent, also starch and tannin are expended; preservation at +8° results mainly in a decrease of tannins, the amt. of starch decreasing or increasing depending on the variety. N. Thon

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIDCHENKO, N.F.; OREKHOV, Ye.N.

Improving the quality of classified anthracite. Ugol' 35 no.5:20 My '60. (MIRA 13:7)

1. Glavnyy inzhener shakhty im.Oktyabr'skoy revolyutsii tresta Shakht-antratsit kombinata Rostovugol' (for Khidchenko).
2. Pomoshchnik glavnogo inzhenera po planirovaniyu, shakhta im. Oktyabr'skoy revolyutsii tresta Shakhtantratsit kombinata Rostovugol' (for Orekhov).
(Donets Basin--Anthracite coal)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

NOVIKOVA, V.A., assistent; GURVICH, B.I., professor, zaveduyushchiy; KHIDE-KEL', L.M., glavnyy vrach.

Prolonged interrupted sleep as part of therapy of rheumatic chorea. Vop. pediat. 21 no.2:11-14 Mr-Ap '53. (MLRA 6:6)

1. Kafedra fakul'tetskoy pediatrii Gor'kovskogo meditsinskogo instituta imeni S.M. Kirova (for Gurvich). 2. Gor'kovskaya detskaya klinicheskaya bol'nitsa Gorodskogo otdela zdravookhraneniya (for Khidekel').
(Sleep) (Chorea) (Rheumatism)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

NOVIKOVA, V.A., assistent; GURVICH, B.I., professor, zaveduyushchiy; KHIDEKEL', L.M., glavnyy vrach.

Phytoncide therapy of dysentery in infants. Vop.pediat. 21 no.4:11-14 Jl-Ag '53. (MLRA 6:10)

1. Kafedra fakul'tetskoy pediatrii Gor'kovskogo gosudarstvennogo meditsinskogo instituta im. S.M.Kirova i gorodskoy detskoy klinicheskoy bol'nitsy.
(Dysentery) (Phytoncides)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

VOLKONSKAYA, R.A., klinicheskiy ordinar; GURVICH, B.I., professor, zavedayushchiy; KHIDEKEL', L.M., glavnyy vrach.

Treatment of dysentery in infants with colloidal silver salt of sulfathiazole. Vop. pediat. 21 no.4:14-17 Jl-Ag '53. (MLRA 6:10)

1. Kafedra fakul'tetskoy pediatrii Gor'kovskogo gosudarstvennogo meditsinskogo instituta im. S.M.Kirova (for Gurvich). 2. Gor'kovskaya gorodskaya detskaya klinicheskaya bol'nitsa (for Khidekel').
(Sulfathiazole) (Dysentery)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

TALENSKIY, O. N., kand. tekn. nauk, red.; KHIDEKEL', I. Ya., red.; REZOUKHOVA, A. G., tekn. red. [redacted]

(Research organization in the industry of the U.S.A.) Organizatsiia nauchnykh issledovanii v promyshlennosti SShA. Pod red. O.N. Talenskogo. Moskva, Izd-vo inostr. lit-ry, 1962. 314 p. Translated from the English. (MIRA 16:6)
(United States--Research, Industrial)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIDEKEL, M. L.

62-58-4-4/32

AUTHORS: Patrikeyev, V. V., Balandin, A.A., Khidekel', M. L.

TITLE: Adsorption and Catalysis (Adsorbtsiya i kataliz) Communication 1: Hydrogenation of Maleic and Fumaric Acid in Liquid Phase (Soobshcheniye 1: Gidrogenizatsiya maleinovoy i fumarovoy kislot v zhidkoy fase)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1958, Nr 4, pp. 411-418 (USSR)

ABSTRACT: In spite of the great practical importance of the hydrogenation of maleic and fumaric acid and of numerous investigations in this field, many a problem of the mechanism of hydrogenation remains unsettled. This is especially the case with regard to the knowledge of the quantity of the substance adsorbed on the catalyst which could solve many problems, as for instance, the effect of the solvent and the reaction product on the mechanism of reaction as well as on the kinetics. In the present paper the authors describe the methods and the investigation of the catalytic hydrogenation process (in liquid phase). The apparatus for the

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

62-58-4-4/32

Adsorption and Catalysis. Communication 1: Hydrogenation of Maleic and Fumaric Acid in Liquid Phase

catalytic hydrogenation is described in great detail (see figures 1-3). The authors found that maleic acid can be better adsorbed and hydrated in a 96% alcohol than fumaric acid. Succinic acid has a displacing effect on fumaric and maleic acid. In the acid mixture of 96% alcohol on skeleton nickel fumaric acid is better adsorbed than maleic acid, however it hydrates more slowly. In the investigation of the catalytic hydrogenation process (in mixtures) the surface concentrations of the reagents during reaction must be considered. There are 13 references, 12 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute for Organic Chemistry imeni N. D. Zelinskiy, AS USSR)

SUBMITTED: November 7, 1957

AVAILABLE: Library of Congress

Card 2/2

1. Catalytic hydrogenation--Processes 2. Liquid maleic acid --Applications 3. Liquid fumaric acid--Applications

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

AUTHORS: Patrikeyev, V.V., Khidekel', M.L. SOV/32-24-9-39/53

TITLE: An Apparatus for Taking Samples of Catalyst Suspensions (Pribor dlya vzyatiya prob suspenzii katalizatora)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 9, pp 1152-1152 (USSR)

ABSTRACT: For taking bigger catalyst samples which should not come into contact with air a syringe was constructed the diagram of which is given. The hollow piston of the syringe is porous at its lower end; thus the liquid in which the catalyst is suspended enters into the hollow space of the piston. As the syringe is calibrated the volume of the catalyst separated from the liquid can be read. In the case of small amounts of catalysts the measuring error amounts up to 10 %. For this reason the catalyst quantity was determined according to the gravimetric method when investigating the absorption and hydration in the liquid phase. The sample taking was carried out with the syringe mentioned above. The rest of the operation was, among others, carried out with a torsion balance; a correction with respect to the specific weight of the liquid was carried out. There is 1 figure.

C[redacted]2 Inst. Organic Chemistry, AS USSR

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIDEKEL', M.L.

5(3)

AUTHORS: Balandin, A. A., Academician, Khidekel', M. L.

SOV/2o-123-1-21/56

TITLE: The Kinetics of the Catalytic Hydrogenation of Molecules as Related to Their Structure (Struktura molekul i kinetika ikh kataliticheskoy gidrogenizatsii)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 1, pp 83 - 86 (USSR)

ABSTRACT: The influence of substituents on the atoms, the linkages of which are subject to catalytic hydrogenation, upon the rate of this reaction has repeatedly been studied. This influence is due to steric as well as to energy factors which are coupled with each other. The present paper deals mainly with such cases in which the energy factors are predominant. The authors have investigated the hydrogenation kinetics of typical representatives of compounds with aromatic and conjugated bonds (in particular of such which differ with regard to σ). The purpose was to study the effect of σ upon v (σ is the conjugation energy, Refs 6,7). The following substances

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were investigated: benzene, pyridine, pyrrole, furan and some of its derivatives, cyclohexadiene-1,4 and-1,3, dihydrofuran-3,4, cyclopentadiene, cyclopentene, eugenol as well as cis and trans iso-eugenol. The order of reaction as determined by a modification of concentration in a broad range, was equal to zero for all the mentioned compounds. In tables 1-3 the results obtained are presented which permit the following conclusions: 1) By the increase of the conjugation energy of the compounds undergoing hydrogenation the rate constant k is reduced. 2) The conclusion (4) from equation (3)

$$\delta E = -\delta Q_{C_1} = c + \delta Q_{C_1K} - r\delta\sigma \quad (3)$$

$$\delta u = -\delta Q_{C_1} = c + \delta Q_{C_1H} - \delta\sigma \quad (4)$$

elucidates the activation of the cyclopropane ring by introduction of the phenyl group into the conjugation with this ring (Table 2, d) (investigated by B.A.Kazanskiy

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and coworkers, Refs 8,9). The activating effect of the conjugation in other cases can be equally explained (Ref 22). 3) The influence exerted by the substituents at their introduction upon the rate constant (Table 3) shall be explained by the action of the induction and hyperconjugation effects on $Q_{C=C}$, Q_{CK} and Q_{CH} (equation 3) as well as by steric factors. 4) The modification of temperature does not interfere with the principle mentioned in 1) for compounds considerably differing regarding σ, this rule might, however, be disturbed in the case of closely neighboring σ values, because the dependence of the adsorption coefficients of the compounds to be compared on the temperature is unequal (Table 2). 5) A considerable variation of the chemical nature of the bonds to be hydrogenated is also capable of interfering with the rule of 1), in correspondence with equation (3). The σ values for pyrrole and benzene for instance, are in close neighborhood although

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τ is smaller for pyrrole than for benzene (Refs 18,21). This may be explained by the interaction of the nitrogen atom which possesses an undivided pair of electrons with a surface Rh. 6) The analysis of the results obtained and of those of reference 23 shows that in general the influence exercised by the solvent is not strong enough to vary the principle of 1) at a considerable difference of the σ values. 7) It can be seen from table 1 and 2 that the activation energy is not affected by the conjugation energy (according to the result of reference 13 concerning Pt). 8) Most of the obtained results (Tables 1 and 2) are sufficiently described by the ratio

$\lg \frac{k_1}{k_2} = a(\sigma_2 - \sigma_1) + b$ which has previously not been known. k_1 and k_2 are the observed rate constants of the hydrogenation of both compounds to be compared, σ_1 and σ_2 - their conjugation energies, a and b - constants (Fig 1). There are 1 figure, 3 tables, and 26 references, 13 of which

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

The Kinetics of the Catalytic Hydrogenation of Molecules as Related to Their Structure SOV/20-123-1-21/56

are Soviet.

ASSOCIATION: Institut organicheskoy khimii im.N.D.Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N.D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: August 5, 1958

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIDEKEL', M. L.: Master Chem Sci (diss) -- "The catalytic hydrogenation of certain compounds with aromatic and conjugate bonds". Moscow, 1959. 18 pp (Acad Sci USSR, Inst of Organic Chem im N. D. Zelinskiy), 110 copies (KL, No 18, 1959, 121)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

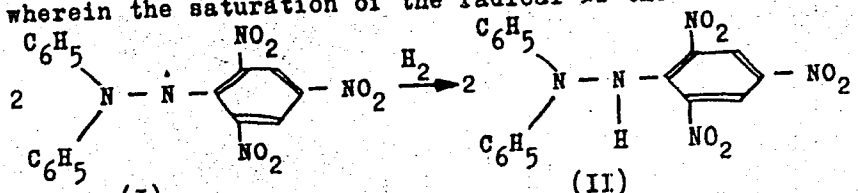
5(3) SOV/62-59-2-33/40

AUTHORS: Balandin, A. A., Khidekel', M. L., Patrikeyev, V. V.

TITLE: On the Catalytic Hydrogenation of the Free Radical of 1,1-Diphenyl-2-picryl Hydrazyl on the Rhodium Catalyst (O kataliticheskom gidrirovanii svobodnogo radikala 1,1-difenil-2-pikrilgidrazila na rodiyevom katalizatore)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1959, Nr 2, pp 361-362 (USSR)

ABSTRACT: It was found in the present paper that the hydrogenation of 1,1-diphenyl-2-picryl hydrazyl (I) proceeds systematically wherein the saturation of the radical is the first stage:



(I) (II)

Furthermore the hydrogenation of the polynitro compound, the diphenyl picryl-hydrazine takes place, which was, however, not investigated in detail. The systematic course of hydrogenation was determined by titration with acetic acid hydroquinone solu-

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

SOV/62-59-2-33/40

On the Catalytic Hydrogenation of the Free Radical of 1,1-Diphenyl-2-picryl Hydrazyl on the Rhodium Catalyst

tion. It was found that first the radical is hydrogenated. The systematic course of hydrogenation of (I) becomes particularly evident on the potential curve (Fig 1, below) and less distinct on the kinetic curve (Fig 1, above). The effect of the concentration of (I), temperature and the quantity of the catalyst on the reaction rate was investigated. It was found that the hydrogenation of (I) proceeds according to an equation of the order zero. The low hydrogenation rate of 1,1-diphenyl-2-picryl hydrazine is explained by a considerable amount of its conjugation energy which is due to a displacement of the free electron. The conjugation energy must be taken into account when using energy equations of the multiple theory (Ref 8) as well as in the investigation of the influence exerted by the structure upon the rate of catalytic hydrogenation. There are 2 figures and 8 references, 4 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

5(4) SOV/62-59-6-7/36

AUTHORS: Balandin, A. A., Khidekel', M. L., Patrikeyev, V. V.

TITLE: Adsorption and Catalysis (Adsorbtsiya i Kataliz). Communication 2. Reaction Rate, Surface Potential, and Adsorption Correlation During Hydration (Soobshcheniye 2. Skorost' reaktsii, potentsial poverkhnosti i adsorbtsionnyye sootnosheniya pri gidrirovanii)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 6, pp 999 - 1004 (USSR)

ABSTRACT: In a previous paper (Ref 1) a mutual influence of maleic- and fumaric acid exemised upon adsorption and hydration could be observed. In this connection, the kinetic- and adsorption interaction of the two aforementioned acids, was subjected to closer investigation by the present paper. The potentiometric method was applied for investigating the hydration reaction in the circulation system. Catalysts were used which adsorbed either both or only one of the acids. By means of these catalysts the intensity with which the acids were adsorbed from the mixture, and the rate of their catalytic transformation were determined. The intensity of the hydration reaction depended on the fraction

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Adsorption and Catalysis. Communication 2. Reaction Rate, Surface Potential, and Adsorption Correlation During Hydration SOV/62-59-6-7/36

of the component which occupied the surface of the catalyst (stopped after 50% hydration and measured, table 1). The characteristics of the catalysts used are given in table 2. According to these experiments, the volume-, the specific-, and the real hydration rate was calculated for the two acids (Table 3). An addition of thiophen to the mixture of the acids decreased their hydration to zero. The strong adsorption of maleic acid which occurs in this case also decreased the adsorption of fumaric acid. Nevertheless, the potential of the catalyst as compared to that of the mixture of the acids decreased only slightly. A parallelism could be observed between the potential drop of the mixture of the acids and their adsorption. The experimental results on the adsorption- and kinetic interaction obtained in the course of the investigation dealt with by the paper under review are in good agreement with the theoretical description of the hydration by Balandin (Ref 6). There are 4 figures, 5 tables, and 6 references, 4 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR(Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

5 (3)

AUTHORS: Balandin, A. A., Khidekel', M. L., Patrikeyev, V. V.

SOV/62-59-7-4/38

TITLE: Adsorption and Catalysis (Adsorbtsiya i kataliz). Communication 3. Successive Hydrogenation of Cyclopentadiene (Soobshcheniye 3. Posledovatel'naya gidrogenizatsiya tsiklopentadiyena)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 7, pp 1169-1176 (USSR)

ABSTRACT: For studying the adsorption- and kinetic interrelation of the reacting substances, the reaction of the successive hydrogenation of the cyclopentadiene (I) is investigated in this paper, running according to the following scheme:

This reaction is a characteristic one because it represents the critical case of the hydrogenation of a binary mixture in which the interrelations of the individual reaction participants are perceptible. The adsorption and hydrogenation were investigated in a circulating system which was developed in the paper mentioned in reference 1. Catalyst and (I) were renewed after

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every performed experiment. Furthermore the same investigations were carried out with cyclopentene (II) to illustrate the process. In figures 1, 2, 3 the kinetic and potential hydrogenation curves of (I), (II) and of a mixture of these are given. It becomes evident that the hydrogenation of (I) takes place much quicker and at lower potentials than that of (II). Both reactions are of the zero order. The observed sudden sharp decrease of potential corresponds to the adsorption of one mole hydrogen. At the moment of the end of the hydrogenation the potential increases sharply. Moreover a comparison of the velocity constants and of the altitude of the potential of different catalysts is carried out (Table 3). The following 2 phenomena were discovered at the different catalysts. On catalysts unsaturated with hydrogen the displacement of potential is essentially greater than on saturated catalysts; that means that hydrogenation takes place on a decrease in the potential which lasts till the end of the hydrogenation of cyclopentadiene. The slowest stage in the catalytic process was supposed to be the stage of the secondary saturation. But this supposition did not prove true. On catalysts not saturated up to the reciprocal hydrogen potential an induced

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final saturation takes place at the end of the hydrogenation reaction. By means of the investigations on the adsorption of the cyclopentene and of the cyclopentadiene and of the mixture of both (Figs 5, 6, 7 and Tables 4, 5), a method of the complete hydrogenation was developed allowing a study of the adsorption of mixtures. It could be developed out of the fact that the adsorption of the cyclopentene is generally greater than the adsorption of the cyclopentadiene, whereas in mixtures the opposite holds. The essential factor of the successive hydrogenation is consequently this that the pentene is displaced from the surface of the catalyst by the cyclopentadiene being more strongly adsorbed out of the mixture according to the existing adsorption properties of both substances in mixture. There are 7 figures, 5 tables, and 10 references, 8 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

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BALANDIN, A.A.; KHIDEKEL', M.L.; PATRIKEYEV, V.V.

Effect of the structure of compounds on the kinetics and direction of their catalytic hydrogenation. Part 1: Conjugation energy and the kinetics of hydrogenation of benzene, pyridine, and pyrrole. Zhur.ob.khim. 31 no.5:1416-1423 My '61. (MIRA 14:5)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo Akademii nauk SSSR.
(Benzene) (Pyridine) (Pyrrole) (Hydrogenation)

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30910
S/190/61/003/012/004/012
B101/B110

15.8610 2209

AUTHORS: Lapshin, N. M., Moryganov, B. N., Razuvayev, G. A., Ryabov, A. V., Khidekel', M. L.

TITLE: Nitrogenous peroxide compounds as initiators of polymerization of vinyl monomers. I

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 12, 1961, 1794 - 1799

TEXT: On the basis of literature data stating that the initiating activity of peroxide compounds is intensified by addition of amines, the authors investigated the initiating effect of peroxides which already contain amine or amide groups in their molecules. Initiators were synthesized as follows: Cumyl-N-phenyl peroxy carbamate and hexamethylene-N,N'-bis-α-cumyl-peroxy carbamate according to Refs. 6, 7 (see below), the other peroxide compounds according to A. Rieche et al. (Chem. Ber., 92, 1206, 1959). N,N',bis-(cumyl peroxy methyl)-urea was first synthesized by the authors: urea was shaken in 2 N H_2SO_4 with cumyl peroxide and formalin. After 12 hr storing in the refrigerator, the peroxide crystallized out

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Nitrogenous peroxide...

(melting point 120 - 121°C, yield 42%). The initial rate of polymerization of monomers cleaned in vacuum by distillation: methyl methacrylate (MMA); methacrylic acid (MA); acrylonitrile (AN); styrene (St) was measured dilatometrically. Results are given in a table. Polymerization was achieved in bulk. A distinct dependence of the initiating effect on the structures of peroxides was found. Peroxides with group >N-CO-O-O were more active than peroxides with group >N-CH_2-O-O. Furthermore, the nature of the monomer especially the chemical nature of the groups between the nitrogen atom and the peroxide group influences the initiating effect of peroxides. The optimum temperature for polymerization also depended on structure of monomer and peroxide. Peroxides with group >N-CH_2-O-O were most effective at elevated temperatures (St; ≥120°C) while the optimum temperature for cumyl-N-phenyl-peroxy carbamate (for MMA, MA, and AN) was 20 - 60°C. The insignificant activity of this compound in polymerization of styrene (120°C) is ascribed to its low temperature stability. The initial rate of polymerization depended on temperature according to the Arrhenius equation. The activation energy was 11.4 kcal/mole. For the dependence of the initial rate v_{in} on the concentration c_o of the initiator

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B101/B110

Nitrogenous peroxide...

(in the concentration range $0.187 \cdot 10^{-3}$ to $0.44 \cdot 10^{-3}$ molar parts), it was found: $v_{in} = 3.5\sqrt{c_o} + 0.0448$. There are 5 figures, 1 table, and 9 references: 2 Soviet and 7 non-Soviet. The three references to English-language publications read as follows: Ref. 3: M. Imoto, S. Choe, J. Polymer Sci., 15, 485, 1955; Ref. 6: E. L. O'Brien, T. M. Beringer, R. B. Mesrobian, J. Amer. Chem. Soc., 79, 6238, 1957; Ref. 7: C. Y. Pedersen, J. Organ. Chem., 23, 252, 1958.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N. I. Lobachevskogo (Scientific Research Institute of Chemistry at the Gor'kiy State University imeni N. I. Lobachevskiy)

SUBMITTED: January 5, 1961

Table. Initial rates of polymerization of MMA, MA, AN, and St with initiation by means of nitrogenous peroxides.

Legend: (A) Initiator; (B) formula; (C) concentration c_o of the initiator,

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moles/1000 g of monomer; (D) initial rate v_H (= v_{in}) of polymerization, % of conversion/min·10; (a) MMA at 60°C; (b) MA at 60°C; (c) AN at 50°C; (d) St at 120°C; (e) does not initiate; (1) cumyl-N-phenyl peroxy carbamate; (2) N-cumyl peroxy methyl benzamide; (3) bis-benzaminomethyl peroxide; (4) hexamethylene-N,N'-bis-α-cumyl peroxy carbamate; (5) N,N'-bis-(cumyl-peroxy-methyl)-urea; (6) bis-(dicyclohexyl aminomethyl)-peroxide; (7) cumyl peroxy methyl dimethylamine; (8) cumyl peroxy methyl dicyclohexylamine.

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Nitrogenous peroxide...

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Table

A Инициатор	B Формула	C Концентрация инициатора, моль/1000 г мономера (c_0)	D Начальная скорость превращения ($\sigma_н$), % превращения /мин·10			
			a Метилметакрилат [1]	b Метакриловая кислота [1]	c Акрилонитрил [2]	d Стирол [2]
1 Кумил-N-фенилпероксикарбамат	$C_6H_5NHCO-O-O-C(CH_3)_2C_6H_5$	0,0073	4,8	≈30	27,5	2,29
2 N-Кумилпероксиметилбензамид	$C_6H_5CONHCH_2-O-O-C(CH_3)_2C_6H_5$	0,0073	не инициирует	0,598	0,943	4,50
3 *бис*-Бензаминометилпероксид	$C_6H_5CONHCH_2-O-O-CH_2NHCOC_6H_5$	0,0073	0,419	0,596	0,52	6,54
4 Гексаметилен-N,N'-*бис*-α-кумилпероксикарбамат	$C_6H_5-C(CH_3)_2O-OC(O)NH(CH_2)_6NH(O)C-O-OC(CH_3)_2C_6H_5$	0,0050	0,546	0,74	2,90	9,55
5 N,N'-*бис*-(Кумилпероксиметил)мочевина	$C_6H_5C(CH_3)_2O-OCH_2NHCONHCH_2-O-OC(CH_3)_2C_6O_5$	0,0050	0,10	0,60	0,42	3,55
6 *бис*-(Дициклогексиламинометил)пероксид	$(C_6H_{11})_2NCH_2-O-O-CH_2N(C_6H_{11})_2$	0,0050	0,3	не инициирует	0,25	1,90
7 Кумилпероксиметилдиметиламин	$(CH_3)_2NCH_2-O-O-C(CH_3)_2C_6H_5$	0,0050	0,15	0,3	0,195	1,25
8 Кумилпероксиметилдициклогексиламин	$(C_6H_{11})_2NCH_2-O-O-C(CH_3)_2C_6H_5$	0,0050	0,83	1,57	0,537	3,98

X

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

BALANDIN, A.A.; KHIDEKEL', M.L.; PATRIKEYEV, V.V.

Effect of the structure of compounds on the kinetics and direction of their catalytic hydrogenation. Part 2: Hydrogenation kinetics of furan, thiophene, and ferrocene on rhodium. Zhur.ob.khim. 31 no.6:1876-1882 Je '61. (MIRA 14:6)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.
(Furan) (Thiophene) (Iron) (Hydrogenation)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIDEKEL', M.L.; BUCHACHENKO, A.L.; RAZUVAYEV, G.A.; GORBUNOVA, L.V.; NEYMAN, M.B.

Oxidation of β-naphthol and some of its derivatives by peroxide compounds. Dokl. AN SSSR 140 no.5:1096-1099 O '61. (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N.I.Lobachevskogo i Institut khimicheskoy fiziki AN SSSR. 2. Chlen-korrespondent AN SSSR (for Razuvayev).

(Naphthol)
(Peroxides)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

LEBEDEV, O.L.; KHIDEKEL', M.L.; RAZUVAYEV, G.A.

Isotopic analysis of nitrogen by the method of electron paramagnetic resonance. Dokl. AN SSSR 140 no.6:1327-1329 O '61. (MIRA 14:11)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N.I.Lobachevskogo i Gor'kovskiy politekhnicheskiy institut im. A.A.Zhdanova. 2. Chlen-korrespondent AN SSSR (for Razuvayev).
(Nitrogen--Isotopes) (Paramagnetic resonance and relaxation)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

LAPSHIN, N.M.; MORYGANOV, B.N.; RAZUVAYEV, G.A.; RYABOV, A.V.; KHIDEKEL', M.L.

Nitrogen-containing peroxide compounds as initiators of vinyl monomer polymerization. Part 1. Vysokom.soed. 3 no.12:1794-1799 D '61. (MIRA 15:3)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete imeni N.I.Lobachevskogo.
(Vinyl compounds) (Peroxides) (Polymerization)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

S/020/62/147/002/013/021
B106/B101

AUTHORS: Gorbunova, L. V., Khidekel', M. L., Razuvayev, G. A., Corresponding Member AS USSR

TITLE: Free radicals in the oxidation of phenols when complex catalysts are present

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 147, no. 2, 1962, 368-371

TEXT: The oxidation of 2,4,6-tri-tert-butyl phenol (I) with oxygen was studied in the presence of "Complex A" catalyst (obtained by saturating a solution of Cu_2Cl_2 in pyridine with O_2) in order to discover whether free radicals occur and the part they play. It has been detected with the aid of e. p. r. spectra that free 2,4,6-tri-tert-butyl-phenoxy radicals (II) form in the oxidation of I. The main oxidation product is 2,6-di-tert butyl benzoquinone (III) accompanied by small amounts of 2,4,6-tri-tert-butyl-p-benzoquinol (IV). In the oxidation 0.7 mole O_2 is absorbed per mole phenol. The oxidation rate increases with increasing quantities of catalyst and reaches a constant maximum value at the molar ratio Cu_2Cl_2:phenol = 1 : 2. The concentration of II changes with the

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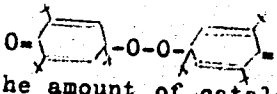
time of oxidation. With a ~40 - 50% conversion of I, the major part of the radicals disappears. Toward the end of the reaction the catalyst is completely regenerated. Addition of H_2O_2 and of acceptors for instable free radicals (benzene, methyl methacrylate) does not change the rate of O_2 absorption. When the radical II is oxidized with oxygen in the presence of "Complex A",



(V) (t = $C(CH_3)_3$) forms in quantitative yield. When the amount of catalyst increases, the oxidation rate decreases. This indicates that II is stabilized when it is incorporated into the complex. These results imply that I becomes oxidized when incorporated into the catalyst complex containing 1 oxygen atom. The hydrogen of the hydroxyl group of I passes to the complex. The phenolate ion formed regenerates the catalyst and is converted to the radical II which reacts in the mesomeric p-quinoid form. The conversion of II in the complex proceeds with quinol IV as intermediary product. II as initial substance is oxidized on incorporation into a complex by the non-modified catalyst, the radical being stabilized. If a different catalyst (Complex

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B" obtained by Cu_2Cl_2 oxidation in methanol) is used, the oxidation of I proceeds the catalyst participating. In this case the oxidation rate is reduced if benzene and methyl methacrylate are added. Conclusion: The direction of the oxidation of I is determined by how the catalyst is modified by the effect of the substrate. The modification is reversible and renders the process selective. This phenomenon may perhaps be one of the principles underlying the catalytic activity of ferments which ensure selectivity through a double control (by the initial catalyst and by the catalyst as modified under the effect of the reaction). There are 3 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N. I. Lobachevskogo (Scientific Research Institute of Chemistry at the Gor'kiy State University imeni N. I. Lobachevskiy)

SUBMITTED: July 10, 1962

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

RAZUVAYEV, G.A.; KHIDEKEL', M.L.; BERLINA, V.B.

Study of the structure of organic compounds by means of electron paramagnetic resonance. Dokl.AN SSSR 145 no.5:1071-1074 '62. (MIRA 15:8)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitet im. N.I. Lobachevskogo. 2. Chlen-korrespondent AN SSSR (for Razuvayev).
(Organic compounds) (Radicals (Chemistry)--Spectra)

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

GORBUNOVA, L.V.; KHIDEKEL', M.L.; RAZUVAYEV, G.A.

Free radicals in the oxidation of phenols in the presence of complex catalysts. Dokl. AN SSSR 147 no.2:368-371 N '62. (MIRA 15:11)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N.I. Lobachevskogo.
2. Chlen-korrespondent AN SSSR (for Razuvayev).

(Radicals (Chemistry))
(Phenols) (Oxidation)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

LAPSHIN, N.M.; KHIDEKEL', M.L.

Problem of connection between the structure of polymers and their paramagnetic properties. Zhur.strukt.khim. 3 no.6:713-714 '62. (MIRA 15:12)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete imeni N.I.Lobachevskogo.
(Polymers--Magnetic properties)

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L 21866-65 EWT(m)/EPF(c)/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4 IPL WW/RM
ACCESSION NR: AR4049264 S/0081/64/000/016/S027/S027

SOURCE: Ref. zh. Khimiya, Abs. 16S142

B

AUTHOR: Razuvayev, G. A.; Lapshin, N. M.; Khidekel', M. L.; Mory*ganov, B. N.; Ryabov, A. V.

TITLE: Nitrogen containing peroxide compounds as initiators of vinyl monomer polymerization. II. Polymerization of methylmethacrylate initiated by the system aminoperoxide-dimethyl aniline

CITED SOURCE: Sb. Vy* sokomolekul. soyedineniya, Karbotsepn. vy*sokomolekul. soyedineniya. M., AN SSSR, 1963

TOPIC TAGS: bulk polymerization, methylmethacrylate polymerization, vinyl monomer polymerization, nitrogen containing peroxide initiator, aminoperoxide dimethylaniline initiator, polymerization initiator

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L 21866-65
ACCESSION NR: AR4049264

TRANSLATION: The study concerns bulk polymerization of methylmethacrylate initiated by the system cumenyl-N-phenylperoxycarbamate (I) - dimethyl aniline (II) - at 40C. It was found that the admixture of II substantially accelerates the polymerization process, peak acceleration occurring at a II:I ratio of 0.5. Data on molecular weight of polymethylmethacrylate coincide well with kinetic results. A solution containing various ratios of I and II in C_6H_6 was treated with 2, 4, 6-tri-tert-butylphenol. After reaction with the radicals, the latter provides 2, 4, 6-tri-tert-butylphenoxyl radicals which are stable under these conditions and can be fixed by means of the EPR technique. The concentration of stable radicals fixable in this manner was highest at a II:I ratio of 0.5. The decomposition of equimolecular mixtures of I and II in a C_6H_6 solution was studied at 40C. Analysis of decomposition products disclosed CO_2, aniline, dimethylaniline, dimethylphenyl carbinol, acetophenone, azobenzene and tarry residues. Admixture of II had negligible effects on polymerization at 60C with four aminoperoxides containing the $>NCH_2OC-$ group. A-symmetrical aminoperoxides are more susceptible to this effect than are their

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L 21866-65
ACCESSION NR: AR4049264

symmetrical counterparts. Activity of the initiator is determined by the structure of a peroxide and the stabilization of the $>NCH_2OO-$ group. For Part I, see RZhKhim, 1962, 10R38. Authors' abstract

SUB CODE: OC, MT ENCL: 00

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIDEKEL', M.L.; YEGOROCHKIN, A.N.; PONOMARENKO, V.A.; ZADOROZHNYY, N.A.; RAZUVAYEV, G.A.; PETROV, A.D.

Nuclear magnetic resonance of silicon hydrides. Izv. AN SSSR. Otd.khim.nauk no.6:1130-1132 Je '63. (MIRA 16:7)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.
(Silicon hydrides--Spectra)

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

YEGOROCHKIN, A.N.; KHIDEKEL', M.L.; PONOMARENKO, V.A.; ZUYEVA, G.Ya.; SVIREZHEVA, S.S.; RAZUVAYEV, G.A.

Proton magnetic resonance spectra of some substituted germanium hydrides. Izv. AN SSSR Ser.khim. no.10:1865-1868 O '63. (MIRA 17:3)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitet, Institut khimicheskoy fiziki AN SSSR i Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

YEGOROCHKIN, A.N.; KHIDEKEL', M.L.; PONOMARENKO, V.A.; ZADOROZHNYY, N.A.

Certain regularities in proton magnetic resonance spectra of trisubstituted silanes. Izv. AN SSSR Ser.khim. no.10:1868-1871 O '63. (MIRA 17:3)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitet, Institut khimicheskoy fiziki AN SSSR i Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

YEGOROCHKIN, A.N.; KHIDEKEL', M.L.; PONOMARENKO, V.A.; ZUYEVA, G.Ya.; RAZUVAYEV, G.A.

Certain regularities in proton magnetic resonance spectra of a number of germanium compounds. Izv.AN SSSR.Ser.khim. no.2:373-375 F '64. (MIRA 17:3)

1. Nauchno-issledovatel'skiy institut khimii pri Ger'kovskom gosudarstvennom universitete im. Lobachevskogo, Instituta khimicheskoy fiziki AN SSSR i Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

KHIDEKEL', M. L.; SHUB, B. R.; RAZUVAYEV, G. A.; ZADOROZHNYY, N. A.; PONOMARENKO, V. A.

2,4,6-tris (trimethylsilyl)-1-phenoxyl, a monomer radical relatively resistant to oxygen. Izv AN SSSR Ser Khim no. 4:776 Ap '64. (MIRA 17:5)

1. Institut khimicheskoy fiziki AN SSSR, Gor'kovskiy gosudarstvennyy universitet im. N. I. Lobachevskogo i Institut organicheskoy khimii im. N. D. Zelinskogo AN SSSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

LAPSHIN, N.M.; OBSHARENKO, N.I.; KHIDEKEL', M.L.

Paramagnetic properties of polycyclopentadiene. Zhur.strukt. khim. 5 no. 2:305-307 Mr-Ap '64. (MIRA 17:6)

1. Filial instituta khimicheskoy fiziki AN SSSR, Noginsk i Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete.

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1"

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

RAZUVAYEV, G.A.; YEGOROCHKIN, A.N.; KHIDEKEL', M.L.; MIRONOV, V.F.

Proton magnetic resonance spectra of some vinyl silicon compounds. Izv. AN.SSSR.Ser.khim. no. 5:928-930 My '64. (MIRA 17:6)

1. Nauchno-issledovatel'skiy institut khimii Gor'kovskogo gosudarstvennogo universiteta, Institut khimicheskoy fiziki AN SSSR i Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722010017-1

ACCESSION NR: AP4040486 S/0190/64/006/006/1068/1071

AUTHORS: Razuvayev, G. A.; Lapshin, N. M.; Khidekel', M. L.; Mory*ganov, B. N.; Ryabov, A. V.

TITLE: Nitrogen containing peroxides as polymerization initiators of vinyl monomers. 3

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 6, 1964, 1068-1071

TOPIC TAGS: vinyl monomer, methyl methacrylate polymerization, methacrylic acid polymerization, styrene polymerization, acrylonitrile polymerization, polymerization initiator, nitrogen containing peroxide, phenylperoxycarbamate, phenylperoxycarbamate decomposition kinetics

ABSTRACT: The purpose of the present investigation consisted of determining whether a tertiary butyl radical (located behind the peroxide bridge of the groupings N-COOO and NCH_2OO) would affect the superior performance of the N-COOO group as polymerization initiator. The initiator activities of tert.butyl-N-phenylperoxycarbamate (I), N-tert.butylperoxymethylbenzamide (II), and N,N'-bis-(tert.

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butylperoxymethyl)urea(III) on the polymerization of methylmethacrylate, methacrylic acid, styrene, and acrylonitrile were investigated. The polymerization of methylmethacrylate was conducted in block, in the presence of 0.05 mole% of the initiator per mole of the monomer, at 18-60C for initiator (I) and at 60C for initiators (II) and (III). It was found that peroxide (I) was the most effective (in its presence the activation energy was 19.6 kcal/mole). Similar tests with methacrylic acid, styrene, and acrylonitrile confirmed the superior performance of the initiator containing the N-COOO grouping. Additional experiments were conducted on the kinetics of decomposition of (I) in benzene at 60-80C. The decomposition was found to proceed generally according to a first order reaction. The activation energy was estimated as 30.5 kcal/mole. Orig. art. has: 2 charts.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii Gor'kovskogo gosudarstvennogo universiteta im. N. I. Lobachevskogo (Scientific Research Institute of Chemistry at Gorkiy State University)

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L 19615-65 EWT(m)/EPF(c)/EWP(j)/T/EWP(b)/EWP(t) Pc-4/Pr-4 IJP(c)/SSD/ESD(b)/AFWL/RAEM(c)/ASD(a)-5/SSD(c)/RAEM(j)/RAEM(i)/ESD(gs)/ESD(t) RM/JM

ACCESSION NR: AP5003220 S/0062/64/000/007/1312/1313

AUTHOR: Yegorochkin, A. N.; Khidekel', M. L.; Razuvayev, G. A.; Mironov, V. F.; Kravchenko, A. L.

TITLE: Proton magnetic resonance spectra of certain elemento-organic compounds of silicon and germanium

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 7, 1964, 1312-1313

TOPIC TAGS: proton, organosilicon compound, germanium compound, spectroscopy, magnetic resonance

ABSTRACT: Comparison of proton magnetic resonance spectra of several saturated and unsaturated organic compounds of silicon and germanium revealed that for unsaturated compounds, the effects of $d_\pi - p_\pi$ - conjugation play an appreciable role. The spectra were recorded on the JMN-3 spectrometer using cyclohexane as the internal standard. To determine chemical shifts in saturated compounds, cyclohexane was combined with the sample in 1:1 volume ratio. Chemical shifts of proton signals in unsaturated compounds were determined by subsequent dilution with cyclohexane and extrapolation of the data to infinite dilution. It was found that chemical shifts of the CH_3- and CH_2-protons in compounds not containing multiple bonds correspond to

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greater electroconductivity of germanium compared with silicon and the qualitative notions of the inductive effect of substituents. Thus, in view of the greater electron-donor capacity of the $-CH_2-M(CH_3)_3$ group, where M = Si, Ge, compared with that of the methyl, resonance frequencies of methylprotons in the compounds $(CH_3)_3M-(CH_2)_n-M(CH_3)_3$ are shifted toward larger values of τ with respect to the same frequencies in the $(CH_3)_4M$ compounds. Orig. art. has: 1 graph and 1 table.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennon universitete (Scientific Research Institute of Chemistry at Gor'kiy State University); Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences, SSSR); Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry, Academy of Sciences, SSSR)

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ASTAKHOVA, A.S.; KHIDEKEL', M.L.

Reactions of some 1,4-dihydropyridines with maleic anhydride and maleic acid. Izv. AN SSSR Ser. khim. no.7:1322-1324 Jl '64. (MIRA 17:8)

1. Institut khimicheskoy fiziki AN SSSR.

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